

Attorney Docket No.: T7105(C)
Serial No.: 10/581,292
Filed: June 1, 2006
Confirmation No.: 3161

REMARKS

Amendments to the Claims

This amendment is made in an earnest effort to advance prosecution of the application.

Independent claim 1 has been amended without prejudice to recite a preferred embodiment of applicants' invention which is more clearly differentiated from the prior art and to correct a spelling error.

Specifically claim 1 specifies that the cosmetic composition can include an optional emulsifying agent/surfactant which is limited to cetyl alcohol as is disclosed on page 7, lines 5-6 and illustrated in Examples 1-3.

Claim 8 has been amended to delete "emulsifying agents" from the Markush group since this limitation has been incorporated in claim 1.

Claims 16 was amended without prejudice to recite embodiments which are even further removed from the prior art. Specifically the amended claim incorporates the limitation recited in claim 2.

Claim 17 is new and specifies that the composition which is being made by the method incorporates the limitations recited in claim 16.

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Claim 18 is new and specifies that the cosmetic composition recited in claim 1 is in the form of a powder as disclosed on page 3, lines 13-14 and Examples 1-3.

Claims Objection

Claim 1 was amended to correct the misspelling pointed out by the Examiner.

Claim Rejections – 35 USC § 103

Claims 1 - 9 were rejected under 35 USC §103(a) as being unpatentable over Farrell et al (US 6,630,432). Applicants respectfully request that the Examiner reconsiders the rejection in view of the above amendments and following remarks.

Statement of Facts

Farrell et al teaches soap bars containing 40-95% of C12 to C24 fatty acid soap, i.e., neutralized fatty acid (column 3, line 53 - 40-90% in claim 1), 7-25% water (column 2, line 37) ; 0-15% of monoglyceride (e.g., glycerol mono laurate or glycerol monostearate) (column 4, line 26 and lines 34-35), 0-15% free fatty acid (column 4, line 28-30); and 2-15% of salts of α - hydroxyl acids (column 4, lines 8-10).

All the soap bar compositions disclosed by Farrell in Examples 1-11 contain 67% to 77% neutralized fatty acid derived from a combination of tallow and nut oil (table spanning columns 5-6).

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Farrell et al is silent about glycol monostearate or cetyl alcohol.

Applicants' invention is directed to a cosmetic composition that is suitable for forming a skin cream or lotion when mixed with water. Applicants discovered that combinations of fatty acid, 2-15 wt% fatty acid neutralized with an inorganic base, specific structurants selected from glycerine monostearate, glycol monostearate and an optional surfactant/emulsifier which consists of cetyl alcohol and a combination thereof, manufactured into a solid in a particular manner provided compositions which formed a smooth skin cream or lotion when combined with an aqueous based liquid, e.g., water.

Applicants' arguments

Applicants submit that their invention is not rendered obvious by Farrell et al because Farrell et al does not teach or suggest a composition which is suitable for forming a skin cream or lotion when mixed with water containing *from 2 to 15 wt % fatty acid neutralized by an inorganic base alone or in combination with an optional surfactant consisting of cetyl alcohol*.

In the Office Action mailed March 18, 2009, the Examiner conceded that Farrell et al does not teach the claimed concentration range of neutralized fatty acid or ratio of water. The Examiner held that determination of optimal or workable concentration of neutralized fatty acid by routine experimentation is obvious absent showing of criticality of the claimed concentration. Emphasis added

The Examiner asserted that "one having ordinary skill in the art would have been motivated to do this to obtain the desired cleansing and lathering properties of the composition".

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Based on comparative results previously presented in a DECLARATION dated December 5, 2008, from Dr. Shiping Zhu, Applicants' have argued that a person of ordinary skill in the art would not have been motivated to create a soap bar having 2 to 15 wt % of a fatty acid neutralized by an inorganic base wherein the fatty acid has a chainlength of 4 to 22 carbon atoms and an optional surfactant consisting of cetyl alcohol because such a composition would have generated virtually no lather and thus, be unsuitable for the purpose intended by Farrell et al.

The influence of wt% neutralized fatty acid on lather/foam can be seen from a comparison of Mixtures labeled 1A, 2A, and 3-5 in Table 2 of the DECLARATION. These compositions contained a tallow/nut oil soap as the neutralized fatty acid which is the type specifically used by Farrell et al in Examples 1-11. It can be seen from Table 2 that a neutralized fatty acid concentration of less than 20% produced at most a trace amount of lather and had very low foaming potential (compare Mixtures 1A, 2A and 3 with Mixtures 4-5).

Furthermore, there was a noticeable decrease in foaming potential in compositions containing 20% soap relative to 50 wt% soap as would be expected from a reading of Farrell et al (compare Mixtures 3 with Mixtures 4-5).

The Influence of chainlength of the neutralized fatty acid can be observed by a comparison of Mixtures labeled 1 and 2 with 1A and 2A and 4-5 in Table 2 of the DECLARATION.

With reference to Tables 1 and 2 of the DECLARATION, mixtures 1 and 2 are composed of a neutralized fatty acid which do not contain any C12 fatty acid while mixtures 1A, 2A and 3-5 include a C12 soap (potassium laurate). Mixtures 1 and 2

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produce absolutely no foam or lather when diluted with water. In contrast mixtures 1A and 2A produce some foam and a trace of lather albeit far lower than at the concentration taught by Farrell. (Compare the foam and lather results of Mixtures 1 and 2 with Mixtures 1A, 2A and 3-5).

Farrell discloses at several places that by following the teaching of the patent high quality soap based bars can be extruded.

“Lathering is one of the most important attributes of a bar of soap perceived by consumers. The lathering, in conjunction with the fragrance, are probably the two most important attributes of a bar of soap in signally its quality and performance to the consumer” S. Gupta in “Soap Technology for the 1990's” Page 69, Editor: Luis Spitz, American Oil Chemists Society (1990) – emphasis added (Exhibit 1 attached)

Farrell specifically teaches the use of a fatty acid soap having a chainlength of 8 to 22 preferably 12 to 24 carbon atoms (column 3, lines 55-59) and a neutralized fatty acid soap concentration of 40 to 80 wt%.

In contrast, applicants specifically restrict the neutralized fatty to a chainlength of 14-22 carbon atoms and a neutralized fatty acid concentration of 2-15 wt% and an optional surfactant that is limited to cetyl alcohol. As clearly demonstrated by the results in the DECLARATION, an artisan who would have made soap bars utilizing these parameters would have produced bars which would have been perceived by the consumer to have virtually no lather in use. That is to say, the bars would have been perceived by consumers to be of low quality which is directly opposite to the goals of Farrell et al.

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Moreover, it was additionally demonstrated in the DECLARATION that dilutions of Mixtures 1 and 2 in which the neutralized fatty acid level was 15% or less and which fell into the claimed carbon chainlength exhibited the look and feel of a skin lotion or skin cream when rubbed on the skin. In contrast, dilutions with a neutralized fatty acid of chainlengths and levels outside the scope of the current invention (Mixtures 3-5) were distinctly different and formed increasingly sticky, viscoelastic stringy foams when rubbed on the skin. These results demonstrate the criticality of the limitation on neutralized fatty acid concentration and chain length to the claimed invention.

Based on the above arguments, applicants submit that a person having ordinary skill in the art would not have been motivated to modify Farrell towards applicants claimed concentration and chainlength ranges in a desire to improve cleansing and lathering properties of the composition because these changes would have in fact severely degraded cleansing and lathering properties and thus the perceived quality of the bar. Furthermore applicants' declaration provides a conclusive showing of the criticality of the claimed concentration and chainlength range for its intended purpose, i.e., as a dilutable base for the instant preparation of a skin cream or lotion by simple dilution with water.

Claims 1-8, 10, and 11- 13 were rejected under 35 USC §103(a) as being unpatentable over Crookham et al (US 6,576, 228). Applicants respectfully request that the Examiner reconsiders the rejection in view of the above amendments and following remarks.

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Statement of Facts

Crookham et al is directed to "Personal wash sunscreen compositions which deposit and lather well" (Title – emphasis added).

Crookham et al discloses a bar composition comprising: (1) 20 to 85% by weight of a first anionic surfactant which is fatty acid soap or synthetic anionics; (2) 0 to 25% of a second surfactant selected from the group consisting of a second anionic (differing from the first), nonionic surfactants, amphoteric/zwitterionic surfactant, cationic surfactant, and mixtures thereof; (3) 0 to 15% fatty acid; (4) 0 to 20% of a water-soluble structurant; (5) 0 to 40% glycerol monoalkanoate; and (6) 0.1 to 10% of a sunscreen agent. (Column 4, lines 25-42)

Crookham teaches that previous attempts to deliver sunscreens from cleansers resulted in a cleanser "which had unsatisfactory user properties (e.g., low lather)". (column 1, lines 17-22 emphasis added). Crookham further teaches that the invention provided "personal wash compositions which deposit high levels of sunscreen while maintaining good lather. (Abstract emphasis added)

Crookham et al discloses that the composition can optionally contain cetyl alcohol which Crookham et al classifies as an "oil/emmolient".

Applicants' invention has already been discussed.

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Applicants' arguments

Applicants submit that their invention is not rendered obvious by Crookham et al because Crookham et al does not teach or suggest a composition *which is suitable for forming a skin cream or lotion when mixed with water containing fatty acid and from 2 to 15 wt % fatty acid neutralized by an inorganic base alone or with an optional surfactant which consists of cetyl alcohol.*

In the Office Action mailed March 18, 2009, the Examiner conceded that Crookham et al does not teach the claimed concentration of neutralized fatty acid or ratio of composition to aqueous base. The Examiner asserted that determination of optimal or workable concentration of neutralized fatty acid by routine experimentation is obvious absent showing of criticality of the claimed concentration. Emphasis added

The Examiner asserted that "one having ordinary skill in the art would have been motivated to do this to obtain the desired cleansing and lathering properties of the composition".

Based on comparative results previously presented in a DECLARATION from Dr. Shiping Zhu, Applicants' again submit that a person of ordinary skill in the art would not have been motivated to create a soap bar by modifying Crookham to limit the *fatty acid neutralized by an inorganic base* to fatty acid having 2 to 15 wt % wherein the fatty acid has a chainlength of 4 to 22 carbon atoms and wherein the composition contained as optional surfactant only cetyl alcohol because such a composition would have generated virtually no lather. Such non-lathering compositions would be against all the teaching of Crookham et al and defeat the whole purpose of that invention, i.e., "personal wash compositions which deposit high levels of sunscreen while maintaining good lather"

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The influence of wt% neutralized fatty acid on lather/foam can be seen from a comparison of Mixtures labeled 1A, 2A, and 3-5 in Table 2 of the DECLARATION. These compositions contained a tallow/nut oil soap as the neutralized fatty acid which is a preferred soap taught by Crookham et al (column 5, lines 51 and 52). It can be seen from Table 2 that a neutralized fatty acid concentration of less than 20% produced at most a trace amount of lather and had very low foaming potential in a cylinder shake test (as used by Crookham et al column 13, lines 1-3) - compare Mixtures 1A, 2A and 3 with Mixtures 4-5.

Furthermore, there was a noticeable decrease in foaming potential in compositions containing 20% soap relative to 50 wt% soap as would be expected from a reading of Crookham et al (compare Mixtures 3 with Mixtures 4-5).

The Influence of chainlength of the neutralized fatty acid can be observed by a comparison of Mixtures labeled 1 and 2 with 1A and 2A and 4-5 in Table 2 of the DECLARATION.

With reference to Tables 1 and 2 of the DECLARATION, mixtures 1 and 2 are composed of a neutralized fatty acid which do not contain any C12 fatty acid while mixtures 1A, 2A and 3-5 include a C12 soap (potassium laurate). Mixtures 1 and 2 produce absolutely no foam or lather when diluted with water. In contrast mixtures 1A and 2A produce some foam and a trace of lather albeit far lower than at the concentration taught by Crookham et al. (Compare the foam and lather results of Mixtures 1 and 2 with Mixtures 1A, 2A and 3-5).

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In contrast to Crookham et al, applicants specifically restrict the neutralized fatty to a chainlength of 14-22 carbon atoms, a neutralized fatty acid concentration of 2-15 wt% and limit the optional surfactant/emulsifier to cetyl alcohol. As clearly demonstrated by the results in the DECLARATION, an artisan who would have made soap bars or liquids utilizing these parameters would have produced compositions which would have been perceived by the consumer to have virtually no lather in use which is directly opposite to the goals of Crookham et al.

Moreover, applicants submit that the "formulation rules" taught by Crookham et al (column 4, lines 25-42) would have specifically taught the artisan that the bar composition would have had to include an additional surfactant which must be a synthetic anionic surfactant, when the fatty acid soap concentration in the composition is between 2-15 wt% alone or in combination with a surfactant consisting of cetyl alcohol.

It was additionally demonstrated in the DECLARATION that dilutions of Mixtures 1 and 2 in which the neutralized fatty acid level was 15% or less and which fell into the claimed carbon chainlength exhibited the look and feel of a skin lotion or skin cream when rubbed on the skin. In contrast, dilutions with a neutralized fatty acid chainlengths and levels outside the scope of the current invention (Mixtures 3-5) were distinctly different and formed increasingly sticky, viscoelastic stringy foams when rubbed on the skin. These results demonstrate the criticality of the limitation on neutralized fatty acid concentration and chain length to the claimed invention.

Based on the above arguments, applicants submit that a person having ordinary skill in the art would not have been motivated to modify Crookham et al towards applicants claimed concentration and chainlength ranges, and optional surfactant selection (i.e., cetyl

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alcohol) in a desire to improve cleansing and lathering properties of the composition because these changes would have in fact severely degraded cleansing and lathering properties and would have been inconstant with the expressed teachings of Crookham et al. Furthermore applicants' declaration provides a conclusive showing of the criticality of the claimed concentration and chainlength range for its intended purpose, i.e., as a dilutable based for the instant preparation of skin cream or lotion by simple dilution with water.

Claim 14 was rejected under 35 USC §103(a) as being unpatentable over Farrell et al (US 6,630,432) as applied to claim 1-9 in view of Honda (JP 07025741 A). Applicants respectfully request that the Examiner reconsiders the rejection in view of the above amendments and following remarks.

Statement of Facts

Farrell et al and Applicants' invention have already been discussed.

Honda was relied upon for teaching a skin composition comprising polyethylene glycol monostearate and glycerin monostearate. Office Action page 5

Applicants Arguments

Honda does not remedy the shortcoming of Farrell et al as a prior art 103(a) reference over claims 1-9 as discussed above.

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Furthermore, applicants respectfully point out as supported by Exhibits 2 and 3 that polyethylene glycol monostearate is a different chemical compound from glycol monostearate. Glycol monostearate (Exhibit 2) is a synonym for ethylene glycol monostearate which is not polyethylene glycol monostearate (Exhibit 3).

Thus, the combination of Farrell et al and Honda does not teach the combination of glycerin monostearate and glycol monostearate in claim 14 in addition to the other limitations of the base claim missing from Farrell et al as discussed above.

Claim 15 and 16 were rejected under 35 USC §103(a) as being unpatentable over Farrell et al (US 6,630,432) and Honda (JP 07025741 A) as applied to claim 1-9, 14 in view of Saito et al. Applicants respectfully request that the Examiner reconsiders the rejection in view of the above amendments and following remarks.

Statement of Facts

Saito was relied upon by the Examiner for teaching "skin compositions comprising fatty acids, e.g., myristic, palmitic and stearic that are neutralized with an aqueous solution of potassium hydroxide". Office Action Page 6

Saito teaches a transparent soap bar composition that includes 20% to 40% of a fatty acid soap preferably of 8-20 carbon atoms, at least one amphoteric surfactant, at least one nonionic surfactant. All the exemplary compositions disclosed by Saito do not contain fatty acid and all have good to excellent foaming properties.

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Saito is silent regarding the presence of un-neutralized or free fatty acid in the composition and none of the examples include any fatty acid which is unneutralized.

Applicants' Arguments

Saito does not remedy the shortcomings of the combination of Farrell et al and Honda as a 103(a) prior art reference over claims 1-9 and 14.

Thus, the combination of Farrell et al, Honda and Saito does not teach all the elements recited in claims 15 and 16.

Furthermore , since Saito like Farrell et al teaches high lathering soap bar compositions requiring much higher levels of soap, a person of ordinary skill in the art would not have been motivated to modify the disclosed compositions to arrive at applicants' invention because the resulting composition would be unsuitable for a soap bar, i.e., the resulting bar would have lathered like a brick!

Regarding claims 17 and 18

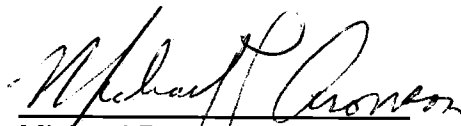
Claims 17 and 18 are even further removed from the combination of the prior art of record because they recite additional non-obvious limitation not taught in this art.

In light of the above amendment and remarks, applicants respectfully request that the application be allowed to issue.

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If a telephone conversation would be of assistance, Applicant's undersigned agent invites the Examiner to telephone at the number provided.

Respectfully submitted,


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